

SMIRNOV, A.V.

Various diseases of the duodenum (nonneoplastic etiology) causing
mechanical jaundice. Khirurgia 36 no.2:3-7 F '60. (MIRA 13:12)

(DUODENUM--DISEASES)

(JAUNDICE)

SMIRNOV, A.V., zasluzhennyj deyatel' nauki prof.

Current status of the diagnosis and surgical treatment of tumors
of the peri-ampullar zone (Vater's ampulla, head of the pancreas,
distal segment of the choledochus, duodenum). Trudy LSGMI 59:
164-171 '60. (MIRA 14:9)
(PANCREAS-TUMORS) (DUODENUM-TUMORS)
(BILE DUCTS-TUMORS)

SMIRNOV, A.V., prof., zasluzhennyj deyatel' nauki

Surgical treatment of obstructive jaundice caused by the growth
of a malignant tumor in the extrahepatic bile ducts and in the
periampullar zone. Vest.khir. 85 no.11:3-7 N '60. (MIRA 14:2)
(JAUNDICE) (BILE DUCTS—TUMORS) (DUODENUM—TUMORS)

IVANOV, A.Ya., prof., otv.red.; AGRANOVSKIY, Z.M., prof., red.; ANDREYEVA-GALANINA, Ye.TS., prof., red.; ANICHKOV, S.V., prof., red.; BABAYANTS, R.A., prof., red.; BASHENIN, V.A., prof., red.; GUTKIN, A.Ya., prof., red.; KAMYSHANOV, A.F., dotsent, red.; KLIONSKIY, Ye.Ye., prof., red.; RYSS, S.M., prof., red.; SMIRNOV, A.V., prof., zasluzhennyj deyatel' nauki, red.; TIKHOMIROV, P.Ye., prof., red.; CHISTOVICH, G.N., prof., red.

[New informative material on the methodology for sanitation of the environment, and the prevention, diagnosis and treatment of some diseases; results of research at the Leningrad Medical Institute of Sanitation and Hygiene to assist in the practice of public health] Novye informatsionnye material po metodike ozdorovleniya vnesheini sredy, preduprezhdeniiu, diagnostike i lecheniiu nekotorykh zabolevanii; rezul'taty nauchnykh issledovanii LSGMI v pomoshch' praktike zdravookhranenia. Leningrad, 1961. 105 p. (Leningrad. Sanitarno-gigienicheskii meditsinskii institut. Trudy, vol.73). (MIRA 17:3)

1. Deystvitel'nyy chlen AMN SSSR (for Anichkov). 2. Chleny-korrespondenty AMN SSSR (for Babayants, Ryss).

SMIRNOV, A.V., zasluzhenny deyatel' nauki, prof. (Leningrad, P-22,
naberezhnaya reki Karpovki, d.13, kv.16).

Influence of S.P.Fedorov's ideas on the development of biliary
tract surgery in the U.S.S.R. Nov. khir. arkh. no.9:12-18 S '61.
(MIRA 14:10)

(FEDOROV, SERGEI PETROVICH, 1869-1936)
(BILE DUCTS--SURGERY)

SMIRNOV, A.V., prof. (Leningrad)

Pancreato-duodenal resections in tumors of the peri-ampullar
region. Khirurgija no.10:35-39 '61. (MIRA 14:10)
(PANCREAS--TUMORS)

NAPALKOV, Pavel Nikolayevich; SMIRNOV, Aleksandr Vasil'yevich, zasl.
deyatel' nauki prof.; SHRAYBER, Mark Grigor'yevich; Prinimali
uchastiye: ASOSKOVA, S.M.; IL'INSKAYA, O.V.; REPIN, Yu.M.; SHAFER,
I.I.; SHNUKLER, B.A.; EL'BERG, G.A.; RUSANOV, A.A., red.; LEBEDEVA,
Z.V., tekhn.red.

[Surgical diseases] Khirurgicheskie bolezni. Pod red. A.V.Smirnova.
Leningrad, Medgiz, 1961. 571 p.
(MIRA 15:12)
(SURGERY, OPERATIVE)

BOGOSLAVSKIY, R.V., prof.; BREGADZE, I.L., prof.; VELIKORETSKIY, A.N.,
prof.; VINOGRADOV, V.V., doktor med. nauk; GROZDOV, D.M., prof.;
GULYAYEV, A.V., prof.; DZHAVADYAN, A.M., doktor med. nauk;
KRAVCHENKO, P.V., prof.; LOBACHEV, S.V., prof.; NIKOLAEV, O.V.,
prof.; PYTEL', A.Ya., prof.; SMIRNOV, A.V., prof.; FAYERMAN, I.L.,
prof.; FUTORYAN, Ye.S.; SHELAGU, A.A., zas. deyatel' nauki, prof.;
ZOIYAN, R.O., prof.[deceased]; PETROVSKIY, B.V., prof., otv. red.;
SENCHILO, K.K., tekhn. red.

[Multivolume manual on surgery] Mноготомное руководство по хирургии.
Otv.red.B.V.Petrovskii. Moskva, Medgiz. Vol.8.[Surgery of the liver,
biliary tract, pancreas, and spleen] Khirurgiya pecheni, zhelchnykh
putei, podzheludochnoi zhelez i selezenki. Red.toma A.V.Guliaev.
(MIRA 15:6)
1962. 659 p.

1. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for Petrovskiy).
(LIVER—SURGERY) (PANCREAS—SURGERY) (SPLEEN—SURGERY)

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SMIRNOV, A.V., zasluzhennyy deyatel' nauki, prof. (Leningrad)

"Textbook of surgery". [in German] Vest. Khir. 91 no.7 135-138
(MIRA 16:12)
Jl. '63

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CIA-RDP86-00513R001651520001-0"

SMIRNOV, A.V., zasluzhennyj deyatel' nauki, prof. (Leningrad, naberezhnaya
Karpovki, PULATOV, ...T., dotsent d.13, kv.16)

Functional state of the adrenal cortex in patients with mechanical
jaundice of different etiology in connection with surgical inter-
vention. Vest. khir. 91 no.9:65-72 S'63. (MIRA 17:4)

1. Iz 1-y kliniki obshchey khirurgii (zav. - prof. A.V. Smirnov)
Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.

SMIRNOV, A.V., zasluzhennyy deyatel' nauki, prof.

Contemporary progress of S.P. Fedorov's ideas on surgery on
the biliary tract. Trudy ISGMI 74:13-22 '62.
(MIRA 17:10)

SMIRNOV, A.V., sariuzhennyj deyatel' nauci; BALAKHINA, T.A.

Clinical aspects in the imposition of hepatogastric (or intestinal) anastomoses in obstruction of intrahepatic bile ducts. Trudy ISGMI 74:165-171 '62. (MIRA 17:10)

SMIRNOV, A.V.

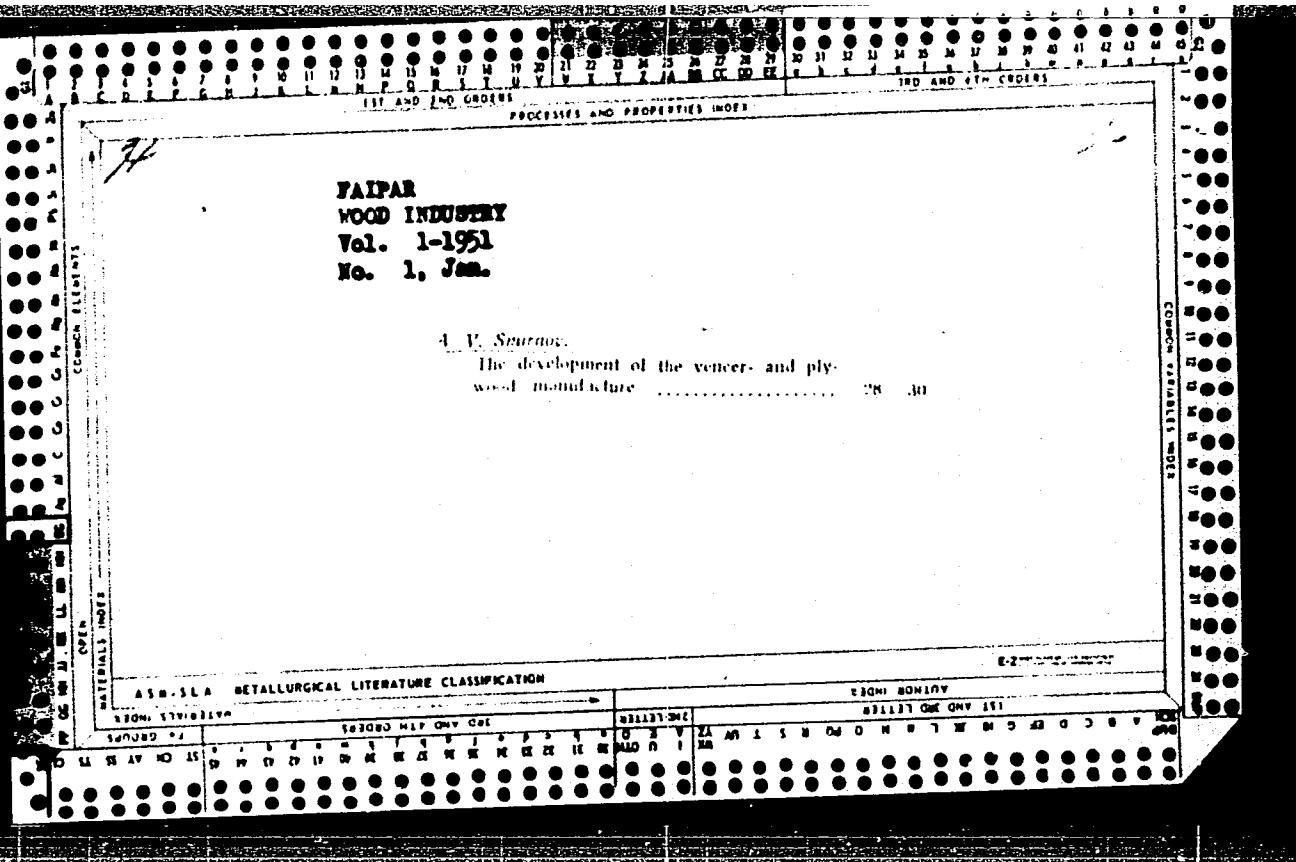
Macrotome for special examination of the brain. Vop. neirokhir.
(MIRA 18:2)
28 no.2:54-55 Mr-Ap '64.

1. Nauchno-issledovatel'skiy ordena Trudovogo Krasnogo Znaniya
institut neyrokhirurgii imeni N.N. Burdenko (direktor - prcr.
B.G. Yegorov) AMN SSSR, Moskva.

SMIRNOV, A.V., prof.; VOLKOVA, L.P., kand. med. nauk

Surgical treatment of chronic painful recurrent pancreatitis.
Khirurgiia 40 no.4:21-24 Ap '64 (MIRA 18:1)

1. Klinika obshchey khirurgii no.1 (zav. - prof. A.V. Smirnov)
Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo insti-
tuta.



1. SMIRNOV, A. V.
2. USSR (600)
4. Plywood Industry
7. Capacity reserves of plywood plants.
Der. i lesokhim. prom. 1 No. 4, 1952

9. Monthly Lists of Russian Accessions, Library of Congress, March 1953, Unclassified.

1. SHIRNOV, A. V.
2. USSR (600)
4. Plywood
7. New book on the contact method of drying plywood. Der. i lesokhim. prom. 2,
No. 1, 1953.
9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

SMIRNOV, A.V.

ZABRODKIN, Aleksandr Gavrilovich, kandidat tekhnicheskikh nauk, laureat Stalinskoy premii; KRASOVSKIY, S.P., retsenzent; LEBEDEV, V.S., retsenzent; SMIRNOV, A.V., redaktor; KARASIK, N.P., tekhnicheskiy redaktor.

[Chemistry and technology of adhesives] Khimiia i tekhnologiya kleevykh veshchestv. Moskva, Goslesbumizdat, 1954. 220 p.
(Adhesives) (MLRA 7:12)

SMIRNOV, A.V., kandidat tekhnicheskikh nauk.

Manual on tools and machines for plywood and veneer production
("Tools and machines for the production of plywood and veneers."
V.S.Lebedev. Reviewed by A.V.Smirnov). Dner.i lesokhim.prom. 3 no.5:
30-31 My '54...
(Woodworking machinery) (Lebedev, V.S.)

*На конференции по производству
для лесопромышленности
(Wood Processing & Wood Prod. Chem. Indus.)*

SMIRNOV, A.V., kandidat tekhnicheskikh nauk.

Make full use of possibilities for increasing productivity of labor
at plywood factories. Der. i lesokhim.prom. 3 no.8:27-29 Ag '54.
(MLRA 7:8)

1. Glavfanspichprom.
(Plywood industry)

SHEPSHELEVICH, Vitaliy Leont'yevich; SMIRNOV, A.V., redaktor; SARMATSKAYA
G.I.: redaktor; KOLESNIKOVA, A.P., tekhnicheskiy redaktor.

[Gluing and veneering furniture parts with bone glue] Skleivanie i
fanerovanie mebel'nykh detalei kostnym kleem. Moskva, Gosles-
bumizdat, 1955. 78 p.
(Veneers and veneering) (Glue)
(MLRA 8:8)

SMIRNOV, A.V.

SHNEYDIN, Isaak Aronovich, kandidat tekhnicheskikh nauk; SMIRNOV, Aleksandr Vasil'yevich, kandidat tekhnicheskikh nauk; DEMIDOVA, Lidiya Aleksandrovna; RAKIN, A.G., redaktor; SIDEL'NIKOVA, L.A., redaktor izdatel'stva; KARASIK, M.P., tekhnicheskiy redaktor

[Technology of wood plastics] Tekhnologija drevesnykh plastikov.
Moskva, Goslesbumizdat, 1956. 239 p. (MIRA 9:7)
(Wood) (Plastics)

SMIRNOV, A.V., kandidat tekhnicheskikh nauk.

Ways of developing the plywood industry. Der.prom.5 ne.4:6-9 Ap
'56. (MIRA 9:7)

1.Glavfanspichprom.
(Plywood)

~~SMIRNOV, A.V., kandidat tekhnicheskikh nauk.~~

Production of joinery panels in Finland. Der.prom. 6 no.1:28-29 Ja
'57. (MLRA 10:2)

1. Glavfanspichprom.
(Finland--Veneers and veneering)

SMIRNOV, A.V., kand. tekhn. nauk.

Veneer and match industries of the U.S.S.R. in the last forty years.
Der. prom. 6 no.11:7-10 N '57. (MIRA 10:11)

1. Minbundrevprom RSFSR.
(Matches) (Veneers and veneering)

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S. A. Smirnov, M. S.
SMIRNOV, A.V., kand. tekhn. nauk.

Wood working industry in Yugoslavia, Der. prom. 7 no. 2:28-29 F '58.
(Yugoslavia--Woodworking industry) (MIRA 11:1)

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CIA-RDP86-00513R001651520001-0"

SMIRNOV, Aleksandr Vasil'yevich, kand.tekhn.neuk; ZIMIN, B.I., red.;
SARMATSKAYA, G.I., red.izd-va; BACHURINA, A.M., tekhn.red.

[Glued plywood] Kleennaia fanera. Moskva, Goslesbumizdat,
1959. 98 p. (MIRA 12:10)
(Plywood industry)

BANKO, V.P.; DEMIDOVA, L.A.; ILYASHEN, M.A.; KONDRASHKIN, Ye.P., kand.
tekhn.nauk; MIRKOVICH, R.A.; PLATNIKOVA, G.P.; POROKHIN, A.A., kand.
tekhn.nauk; RUMYANTSEVA, O.M.; TEMKINA, R.Z., kand.tekhn.nauk; TI-
KHONOV, N.F.; SHVARTSMAN, G.M., kand.tekhn.nauk; SHEYDIN, I.A.,
kand.tekhn.nauk; SMIRNOV, A.V., red.; VOLKONSAYA, L.V., red.
izd-va; BACHURINA, A.M., tekhn.red.

[Veneerer's handbook] Spravochnik fanershchika. Vol.2. 1959.
333 p. (MIRA 13:3)

1. TSentral'nyy nauchno-issledovatel'skiy institut扇ery i mebeli.
(Veneers and veneering)

SMIRNOV, A.V.

Development of the plywood industry during the period 1959-
1965. Der.prom. 8 no.2:1-3 F '59. (MIRA 12:2)

1. Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta Ministrov
RSFSR.

(Plywood industry)

SMIRNOV, A.V.

Developing the production of fibrous hardboards. Der.prom. 8
no.6:12-14 Je '59. (MIRA 12:8)

1. Gosudarstvennaya nauchno-tehnicheskaya komissiya Soveta
Ministrov SSSR.

(Hardboard)

SMIRNOV, A.V., kand.tekhn.nauk

Introduction of new equipment and technology is one of the main tasks of the 1960 plan. Der.prom. 9 no.4:1-4 Ap. '60.
(MIRA 13:9)

1. Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta Ministrov
RSFSR.
(Woodworking industry)

NEKHAY, Stepan Matveyevich; KHABAROV, Valentin Ivanovich; SMIRNOV, A.V.
rod.; AZANOVA, V.G., rod. izd-va; LOBANKOVA, R.Ye., tekhn. red.

[Power presses for the manufacture of particle boards] Pressy dlia
struzhechnykh plit. Moskva, Goslesbunizdat, 1961. 76 p.
(MIRA 15:2)

(Hardboard)

(Power presses)

SMIRNOV, Aleksandr Vasil'yevich, kand. tekhn. nauk; SMOLENSKIY, K.I.,
nauchnyy red.; ALESHINSKIY, N.A., nauchnyy red.; KRUGLOV, S.A.,
red.; KOZLOVSKAYA, M.D., tekhn. red.; TOKER, A.M., tekhn. red.

[Operator of the veneer peeling machine in the plywood and
veneer industry] Lushchil'shchik v fanernom proizvodstve. Mo-
skva, Proftekhizdat, 1961. 168 p. (MIRA 15:6)
(Woodworking machinery) (Veneer and veneering)

SMIRNOV, Aleksandr Vasil'yevich; SMOLENSKIY, K.I., red.; VOLOKHONSKAYA, L.V.,
red. izd-va; LOBANKOVA, R.Ye., tekhn. red.

[Technology and mechanization of plywood manufacture] Tekhnologija i
mekhanizatsija fanernogo proizvodstva. Moskva, Goslesbumizdat,
1961. 367 p. (MIRA 14:11)
(Playwood industry)

SMIRNOV, A.V., red.; VOLOKHONSKAYA, L.V., red. izd-va; BACHURINA,
A.M., tekhn. red.

[Veneering handbook] Spravochnik fanershchika. Izd.2. Mo-
skva, Goslesbumizdat. Vol.1. 1961. 522 p. (MIRA 15:2)

1. TSentral'nyy nauchno-issledovatel'skiy institut fanery i
mebeli.
(Veneers and veneering)

SMIRNOV, A.V.

Some results of the fulfillment of the plan for the introduction
of new equipment and technology during 1960 and tasks set for 1961.
Der.prom. 10 no.2:1-3 F '61. (MIRA 14:3)

1. Gosudarstvennyy nauchno-tehnicheskiy komitet Soveta ministrov
RSFSR.
(Wood-using industries)

SMIRNOV, A.V., kand.tekhn.nauk

New Plywood Combine in Rumanie, Der. prom. 10 no.6:26-28
Je '61. (MIRA 14:7)
(Rumania—Plywood industry)

SMIRNOV, A.V.

State of the plywood industry on the eve of the 22d Congress of
the CPSU. Der.prom. 10 no.9:6-8 S '61. (MIRA 14:10)

1. Gosudarstvennyy komitet Soveta Ministrov RSFSR po koordinatsii
nauchno-issledovatel'skikh rabot.
(Plywood industry)

KOTLYAREVSKIY, K.V.[deceased]; KOTLYAREVSKAYA, G.A.; SMIRNOV, A.V.,
red.; SHENDAREVA. L.V., tekhn. red.; MILIKESOVA. I.F.,
tekhn. red.

[Economical expenditure of veneer] Ratsional'nyi raskhod stro-
ganoj fanery. Moskva, TSentr.in-t tekhn. informatsii i eko-
nomicheskikh issl. po lesnoi, bumazhnoi i derevoobrabatyvaiu-
shchei promyshl., 1962. 43 p. (MIRA 16:9)

(Veneers and veneering)

DENISENKO, Vladimir Vasil'yevich; SMIRNOV, A.V., red.; BASINKEVICH,
I.R., red.izd-va; KARLOVA, G.L., tekhn. red.

[Using wooden sliding-friction parts in machinery] Primenenie
v mashinakh drevesnykh detalei skol'ziashchego treniia. Mo-
skva, Goslesbumizdat, 1962. 67 p. (MIRA 16:3)
(Machinery industry) (Wood, Compressed)

SMIRNOV, A.V.

Let's speed up the progress of woodworking industries. Der.prom.
ll no.5:1-3 My '62. (MIRA 15:5)

1. Gosudarstvennyy komitet Soveta Ministrov RSFSR po koordinatsii
nauchno-issledovatel'skikh rabot.
(Woodworking industries)

SMIRNOV, Aleksandr Vasil'yevich, kand. tekhn. nauk; BURKOV, V.I.,
red.; NIKITINA, L.V., red.izd-va; KUZNETSOVA, A.I., tekhn.
red.

[Prospects for the development of the veneer and match industries
during the period from 1959 to 1965] Perspektivy razvitiia fandr-
noi i spichechnoi promyshlennosti v 1959 - 1965 gg. Moskva, Gos-
lesbumizdat, 1960. 31 p. (MIRA 16:4)

(Plywood industry) (Match industry)

SVITKIN, M.Z.; ZAVRAZHNOK, A.M.; SMIRNOV, A.V., red.; PETRENKO,
V.M., tekhn. red.

[Production of particle boards by the extrusion method]
Proizvodstvo struzhechnykh plit ekstruzionnym sposobom.
Moskva, TSentr. in-t tekhn. informatsii i ekonom. issledo-
vani po lesnoi, bumazhnoi i derevoobrabatyvaiushchei
promyshl., 1962. 50 p. (MIRA 17:3)

1. Cherepovetskiy zavod "Fenerodetal'" (for Zavrazhnik).

YAGODKIN, N.N.; SMIRNOV, A.V., nauchn. red.

[Production of particle boards and the study of their properties in Finland] Proizvodstvo struzhechnykh plit i issledovanie ikh svoistv v Finliandii. Moskva, TSentr. in-t tekhn. informatsii i ekon. issledovanii po lesnoi, bumazhnoi i derevoobrabatyvaiushchei promyshl., 1963. 59 p.
(MIRA 17:4)

1. TSentral'nyy nauchno-issledovatel'skiy institut fanery i mebeli.

VINIK, P.A.; SMIRNOV, A.V., nauchn. red.

[Organization of workshops for the production of rotary-cut veneer and plywood at woodworking and lumbering enterprises] Organizatsiya tsekhov po proizvodstvu shpona i fany pri derevoobrabatyvaiushchikh i lesozagotovitel'nykh predpriyatiakh. Moskva, TSentr. nauchno-issl. in-t informatsii i tekhniko-ekon. issledovanii po lesnoi, tselliuloznobumazhnoi, derevoobrabatyvaiushchei promyshl. i lesnomu khoz. 1964. 26 p. (MIRA 17:12)

VINNIK, Nikolay Iosifovich; KORYSTIN, Lev Nikolayevich; ZUBOV,
I.V., red.

[Industrial production of compressed wood] Promyshlennoe
proizvodstvo pressovannii drevesiny. Moscow, Izd-vo
"Lesnaia promyshlennost," 1964. 137 p. (MIRA 17:5)

SMIRNOV, A.V.

Some problems in planning large plywood producing enterprises.
(MIRA 19:1)
Der. prom. 14 no.7:1-4 J1 '65.

SMIRNOV, A.V., kandidat tekhnicheskikh nauk.

Some characteristics of the performance of a deep, open canal in
peaty soils. Gidr.i mel.6 no.4:24-29 Ap '54. (MLRA 7:5)
(Drainage)

SMIRNOV, Aleksey Vladimirovich, kandidat tekhnicheskikh nauk; KOREYSHO,
I.E.G., redaktor; PERESTPKINA, Z.D., tekhnicheskiy redaktor;
ZUBRILINA, Z.P., tekhnicheskiy redaktor

[Drainage and utilization of flood lands] Osushenie i osvoenie
poimennykh zemel'. Moskva, Gos. izd-vo selkhoz. lit-ry, 1956.
94 p.

(Alluvial lands)

15-57-3-3402

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 3,
p 136 (USSR)

AUTHOR: Smirnov, A. V.

TITLE: Sapropel Reserves of Nero Lake; an Experiment on Using
Sapropel as Soil Conditioner, and Methods of Productive
Extraction (Zapasy sapropeley ozera Nero, opyt ikh
ispol'zovaniya na udobreniye i sposoby proizvodstvennoy
dobychi)

PERIODICAL: Tr. Labor. sapropel. otlozheniy. In-t lesa AN SSSR,
1956, Nr 6, pp 201-213

ABSTRACT: The store of sapropel in Lake Nero amounts at least to
250 million m³. Agricultural field experiments and
chemical analyses show it to have a high value as a
soil conditioner in agriculture. The content of humus
(from 3 to 17 percent) and of calcium (from 10 to 32
percent) makes it especially valuable for conditioning
podsol and gley soils. V. F. Ye.

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SMIRNOV, ALEKSEY, VLADIMIROVICH

SMIRNOV, Aleksey Vladimirovich, kand.tekhn.nauk; NEFEDOV, Vasiliy Dmitriyevich,
inzh.; ORLOVA, V.P., red.; ZUBRILINA, Z.P., tekhn.red.; GUREVICH, M.M.,
tekhn.red.

[Reconstruction of drainage systems] Pereustroistvo osushitel'nykh
sistem. Moskva, Gos.izd-vo sel'khoz. lit-ry, 1957. 109 p.
(Drainage) (MIRA 11:2)

СИМЕНС, А.Л.

СИМОН, А.Л., кандидат технических наук.

Use of lake sapropel for fertilizer. Zemledelie 5 no.9:36-8
S '52. (ЖЕРДА 10:9)

(Sapropels) (Fertilizers and manures)

SMIRNOV, V. A.

"Notes on Determining the Degree of Susceptibility of an Area to Drought." p.135

with Malyugin, Ye. A., and Shakhnovich, A. V., "Changes in the Local Climate and Moisture Cycles of Cultivated Areas as a Result of Irrigation Conducted to Combat Drought." p. 116.

in book, Droughts in the USSR, Their Origin, Frequency, and Effect on Crops, Leningrad, Gidrometeoizdat, 1958, 206p.

Agrometeorological Div, All-Union Plant Cultivation Inst.

SITKOVSKIY, P.A.; KOMAROV, G.V.; BRUSENTSEV, V.F.; KREMENETSKIY, N.N.;
MAMAYEV, M.G., kand.tekhn.nauk; SMIRNOV, A.V., kand.tekhn.nauk;
AFANAS'YEV, I.V.; VOLOD'KO, I.F., kand.tekhn.nauk; BEGLIYAROV, S.A.;
KONDRAT'YEV, V.V.; KARLINSKAYA, M.I.; NIKOLAYEV, M.I., kand.tekhn.
nauk; DOROKHOV, S.M.; PISHCHUROV, P.V.; KLIMENTOVA, A.V.; ROZENBLAT,
Zh.I.; FANDSYEV, V.V., kand.tekhn.nauk; KULIKOV, P.Ye.; SHIMANOVICH,
S.V.; DELITSIN, M.V., retsenzent; BRAUDE, I.D., retsenzent; BARYSHEV,
A.M., retsenzent; GRIGORYANTS, A.S., retsenzent; IGNATYUK, G.L.,
retsenzent; KALABUGIN, A.Ya., retsenzent; KREMENETSKIY, N.D.,
retsenzent; POPOV, K.V., retsenzent; ORLOVA, V.P., red.; LETNEV,
V.Ya., red.; SOKOLOVA, N.N., tekhn.red.; FEDOTOVA, A.F., tekhn.red.

[Handbook for hydraulic and agricultural engineers] Spravochnik
gidrotekhnika melioratora. Moskva, Gos.izd-vo sel'khoz.lit-ry,
1958. 766 p. (MIRA 12:3)
(Hydraulic engineering) (Agricultural engineering)

SMIRNOV, A.V., kand.tekhn.nauk

From the history of land reclamation in the territory of Moscow.
Gidr.i mel. 13 no.7:55-60 Jl '61. (MIRA 14:7)
(Moscow--History)

SMIRNOV, A.V., kand. tekhn. nauk

Depth for the laying of drains. Gidr. i mel. 17 no. 2-41-47 F '65.
(MIRA 18:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrotekhniki i
melioratsii im. A.N.Kostyakova.

YARIKOV, G.M.; SMIRNOV, A.V.

Paleogeography and sedimentation in the Early Vise in the Volga Valley
portion of Volgograd Province. Geol. nefti i gaza 9 no. 9:36-41 S '65.
(MIRA 18:9)

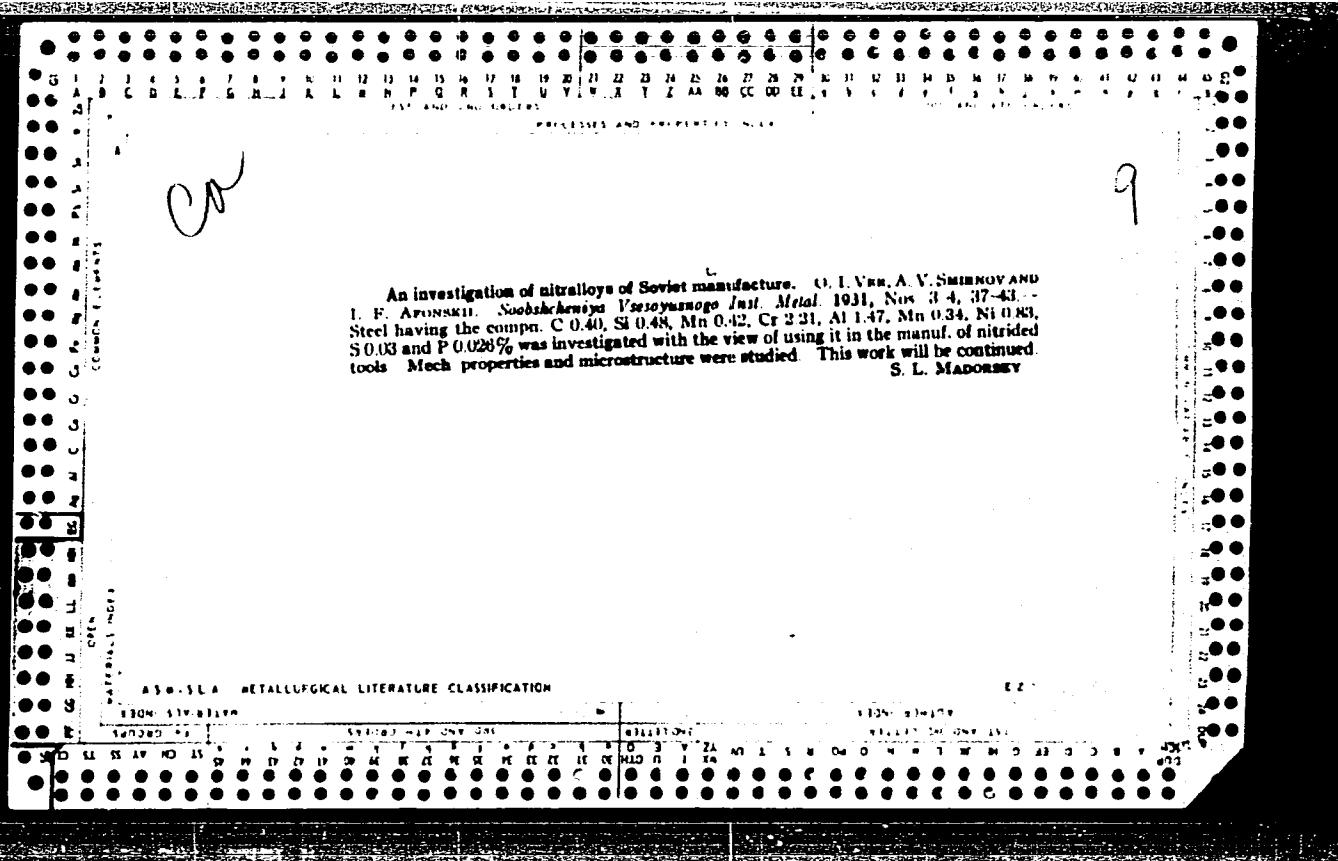
Practical instructions for nitriding steel. O. I. Vek and A. V. Smirnov. Soobshcheniya Vsesoyuznogo Inst. Metal. 1931, Nos. 1-2, 17-22. Instructions for nitriding steel with NH₃ are given and also details of the furnace and microphotographs of samples. The temp. should be around 400-610°, pressure of NH₃ not over 10 mm. in an air tight furnace and rate of flow of gas such that 30% of the NH₃ dissociates. The period of nitration is about 50 hrs. Heat treatment, annealing and polishing of surface of objects should all precede nitration. Cooling after nitration should take place slowly in the furnace itself in a stream of NH₃. The NH₃ should be dried over mol-slated lime or solid NaOH. Spots on the surface not to be nitrided should be turned with a 50-50 Pb-Sn coat.

S. L. Mandrusky

9

The nature of flakes (white spots of minute cracks) in connection with an investigation of turbine disks. A. L. BABOSHIN, A. V. SMIRNOV, A. P. TULYAKOV and A. I. NORMARK. Soobshcheniya Vsesoyuznogo Inst. Metal. 1951, Nos. 3-4, 27-36.—Flakes, or white spots of minute cracks, found inside and on the surface of Ni-Cr, Ni and Cr steel products are the principal defects responsible for the rejection of 50% or more of turbine disks. An attempt was made to interpret the nature of these flakes and to find means for their combat. The study was made along the lines of chem. analysis, macrostructure of fracture, microstructure of the steel, mech. properties, critical points and effect of individual chem. elements on dendritic segregations. It is concluded that the flakes are closely related to the dendrite inclusions. Strains form along dendrite axes and in the interdendrite spaces during the critical temp., interval of cooling and later cause the minute cracks or flakes. This difficulty can be overcome by a proper control of the cooling soon after casting or during and after forging. S. I. Mamonova.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651520001-0"



Technical rules for combustion in fused salts. A. V. SMIROV AND N. I. MASALOV.
Repts. Inst. Metals, Leningrad 1933, No. 13, 82-89 (in English 80).—Rules pertaining to
reagents, procedure and safety are given.

S. I. MADORSKY

APPROVED FOR RELEASE: 08/25/2000

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9

Axes and fixed pivots for alarm clocks. As. V. Smirnov
and N. I. Masalov. *Repts. Inst. Metals* (Leningrad) No.
15, 70-95 (in English 90) (1923).—The processes of harden-
ing C steel axes in cyanide salts and of nitriding Cr-Al
steel fixed pivots were investigated. Details of the process
are given. S. I. Masalov.

CH

Technical Report

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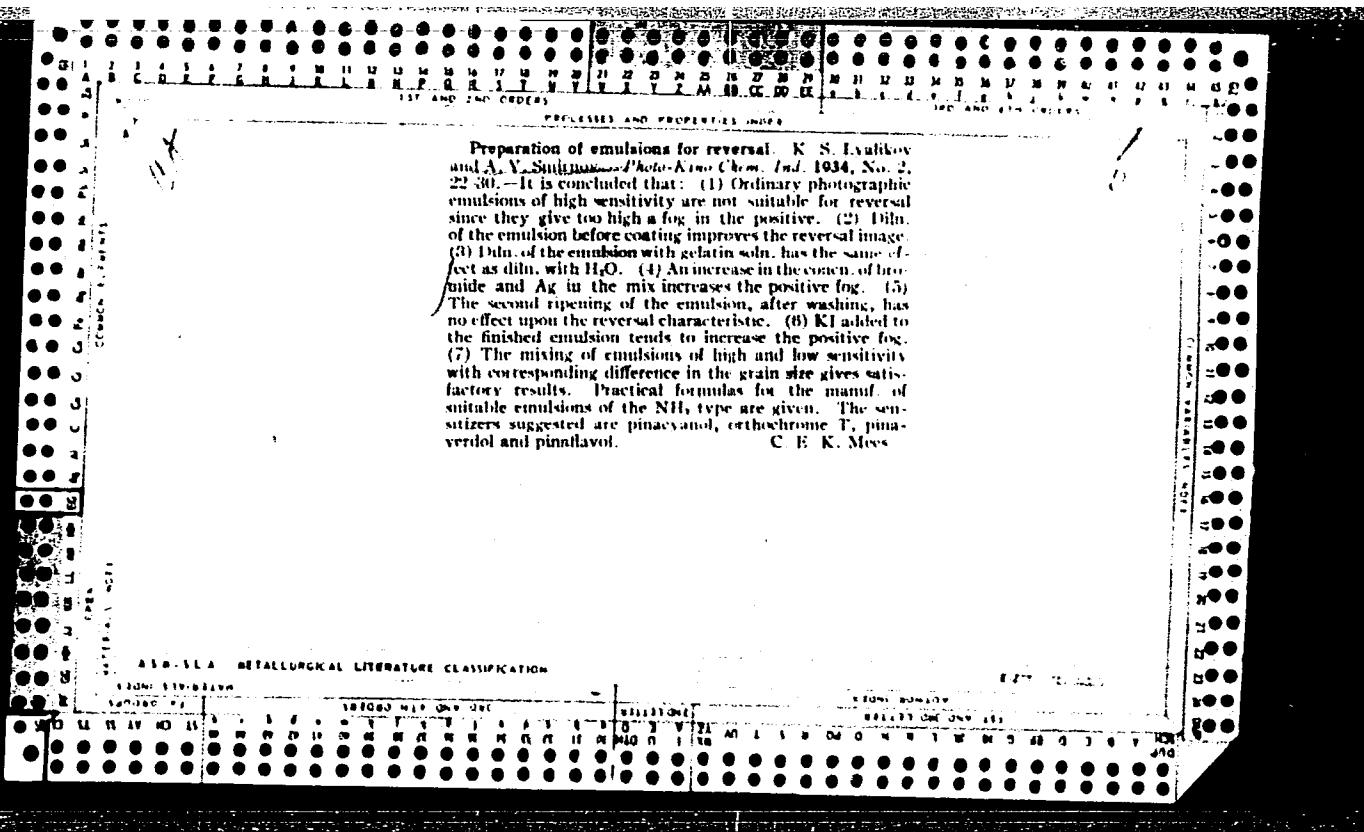
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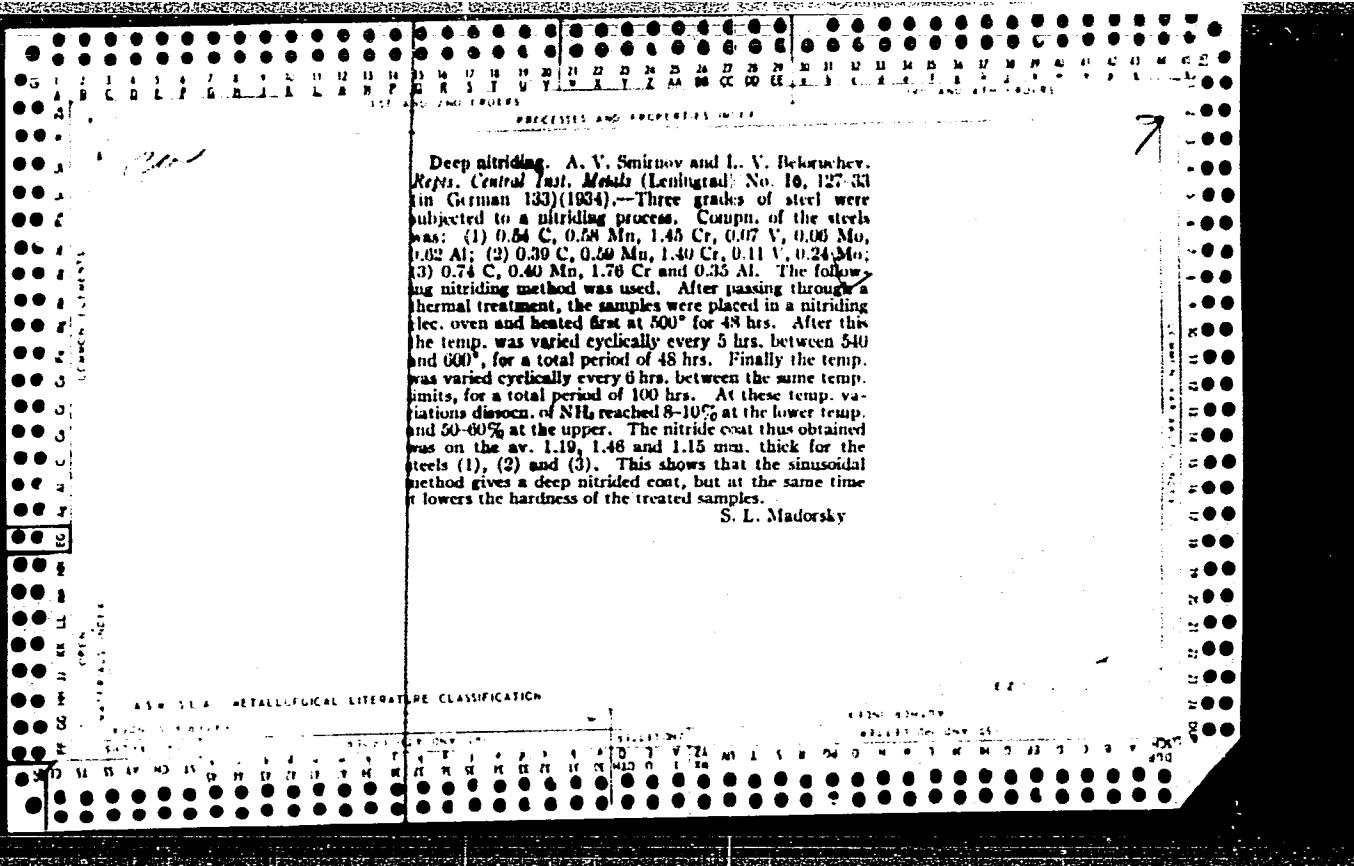
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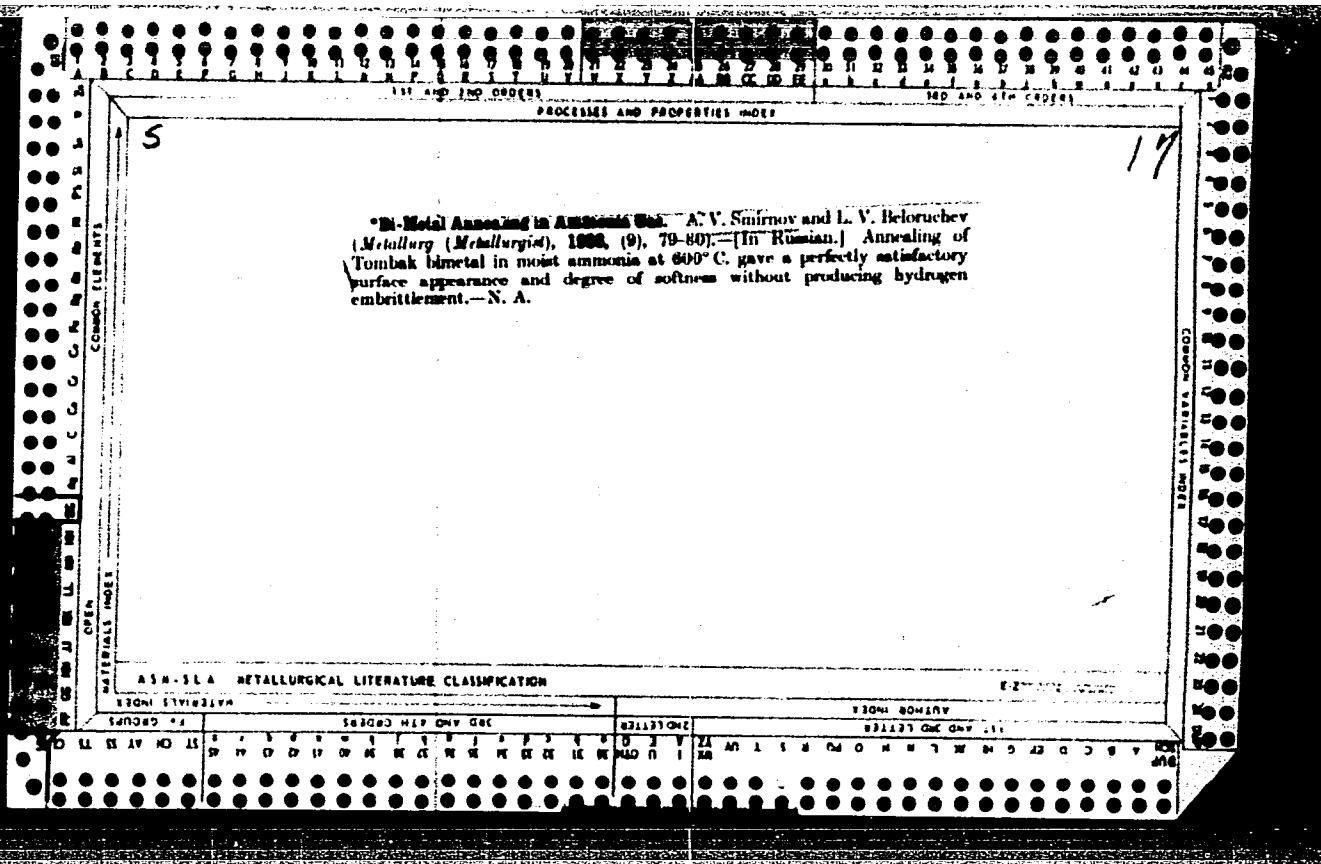




Manufacture and properties of steel wire. A. I. Baboshin, A. V. Smirnov and N. I. Maslov. *Ural Metallprom.* 15, No. 4, 21-44 (1936); *Chem. Zentr.* 1936, I, 1600. Studies are reported on the influence of the degree of deformation and the heat treatment on the structure, the mech. properties and the resistance to corrosion of steel wire drawn from 18 to 1.4 mm. diam. and of the following composition: one specimen 0.37-0.40% C, 0.23-0.28% Si, 0.33-0.36% Mn, 0.022-0.032% S and 0.005-0.008% P; another 0.65-0.7% C, 0.18-0.24% Si, 0.37-0.50% Mn, 0.014-0.017% S and 0.015-0.017% P. Of the mech. properties tensile strength, resistance to shock, bending strength, resistance to torsion, fatigue strength and the elastic limit were investigated. On the basis of the exptl. results it is recommended that in drawing the deformation should not exceed 75%, and that a final heat treatment at 250-300° increases the resistance to shock. The torsion strength cannot be concluded from the results of tests of bending strength; each test must be made independently. The torsion test detects defects due to too great deformation during drawing, while the bending test is a test of the plastic properties of the material.

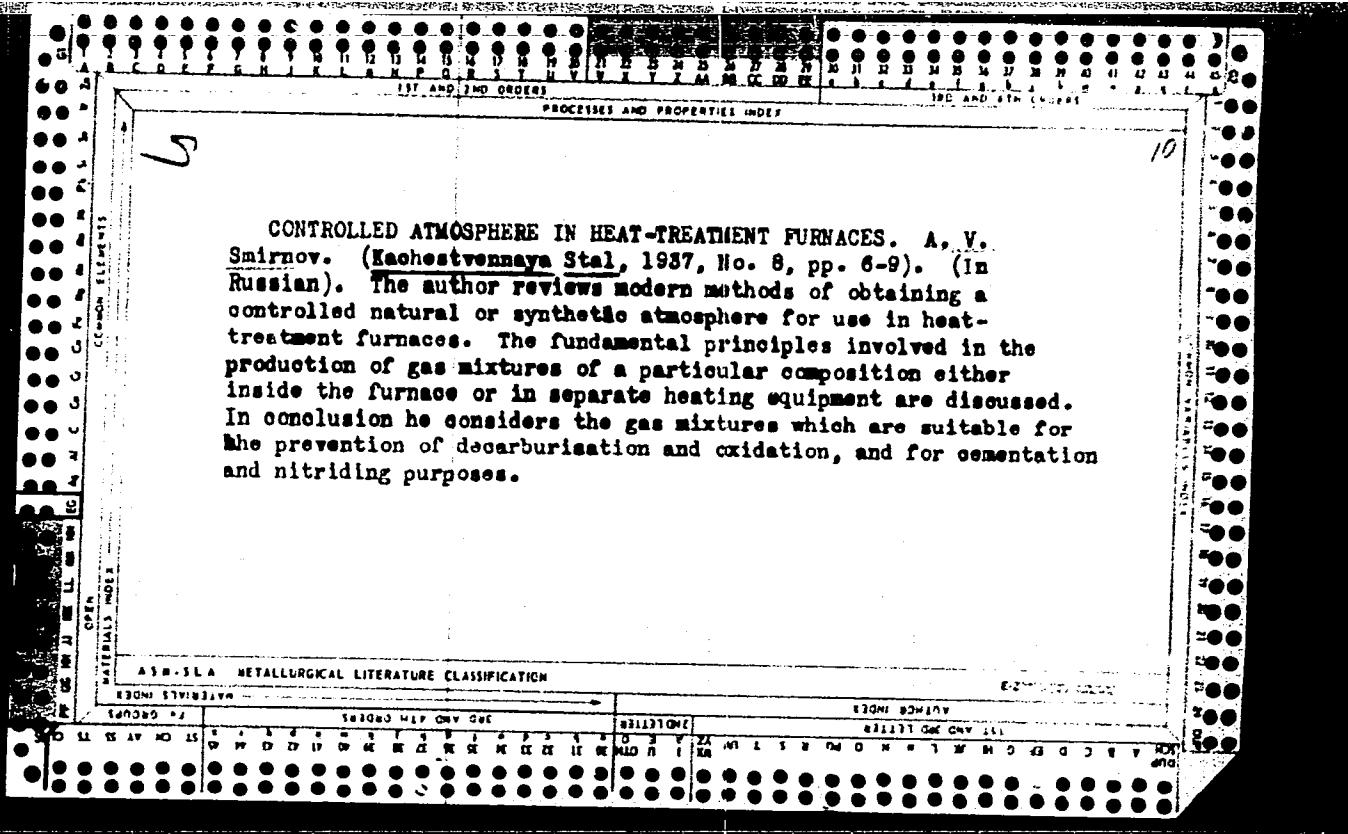
M. G. Moon

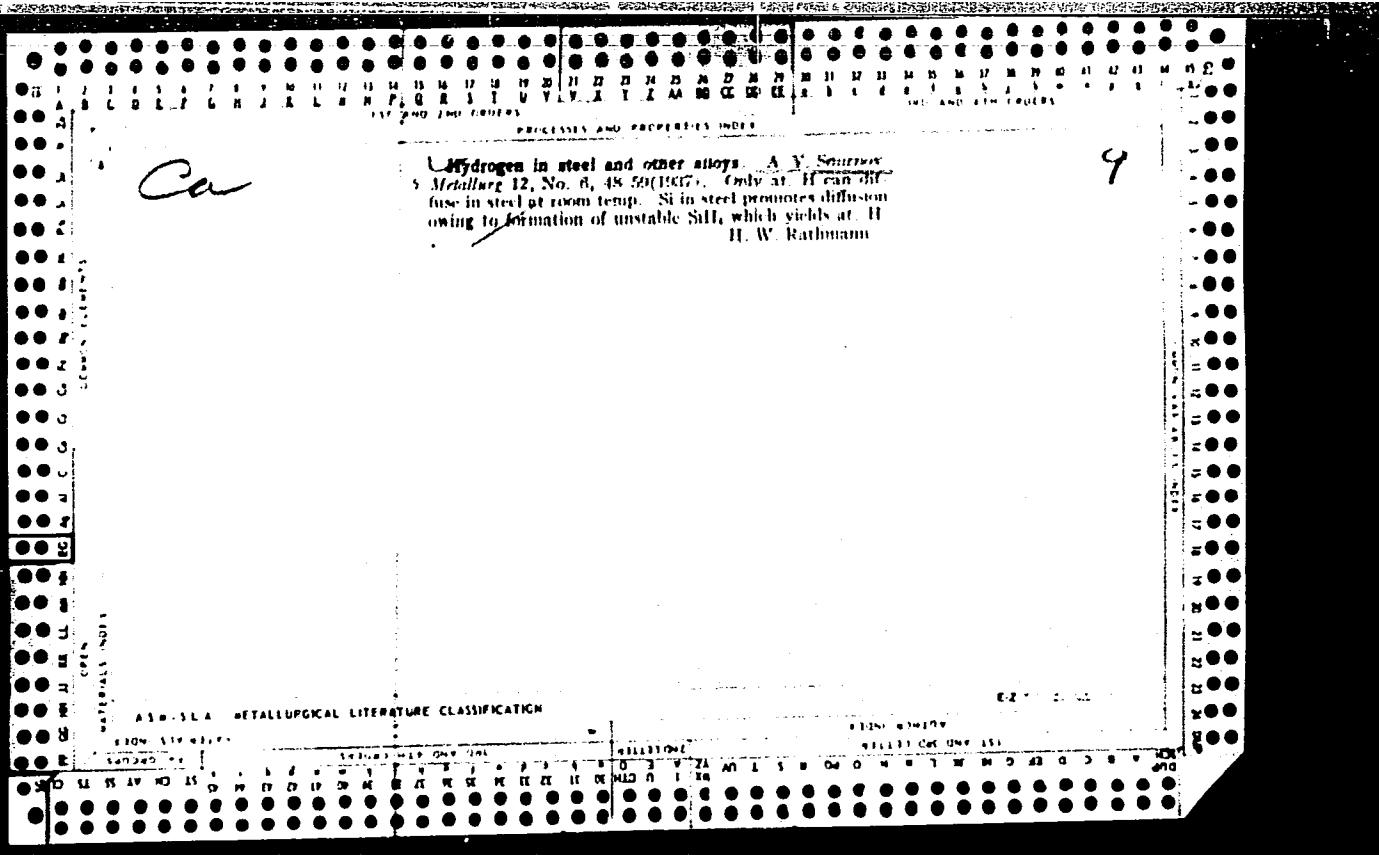
ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

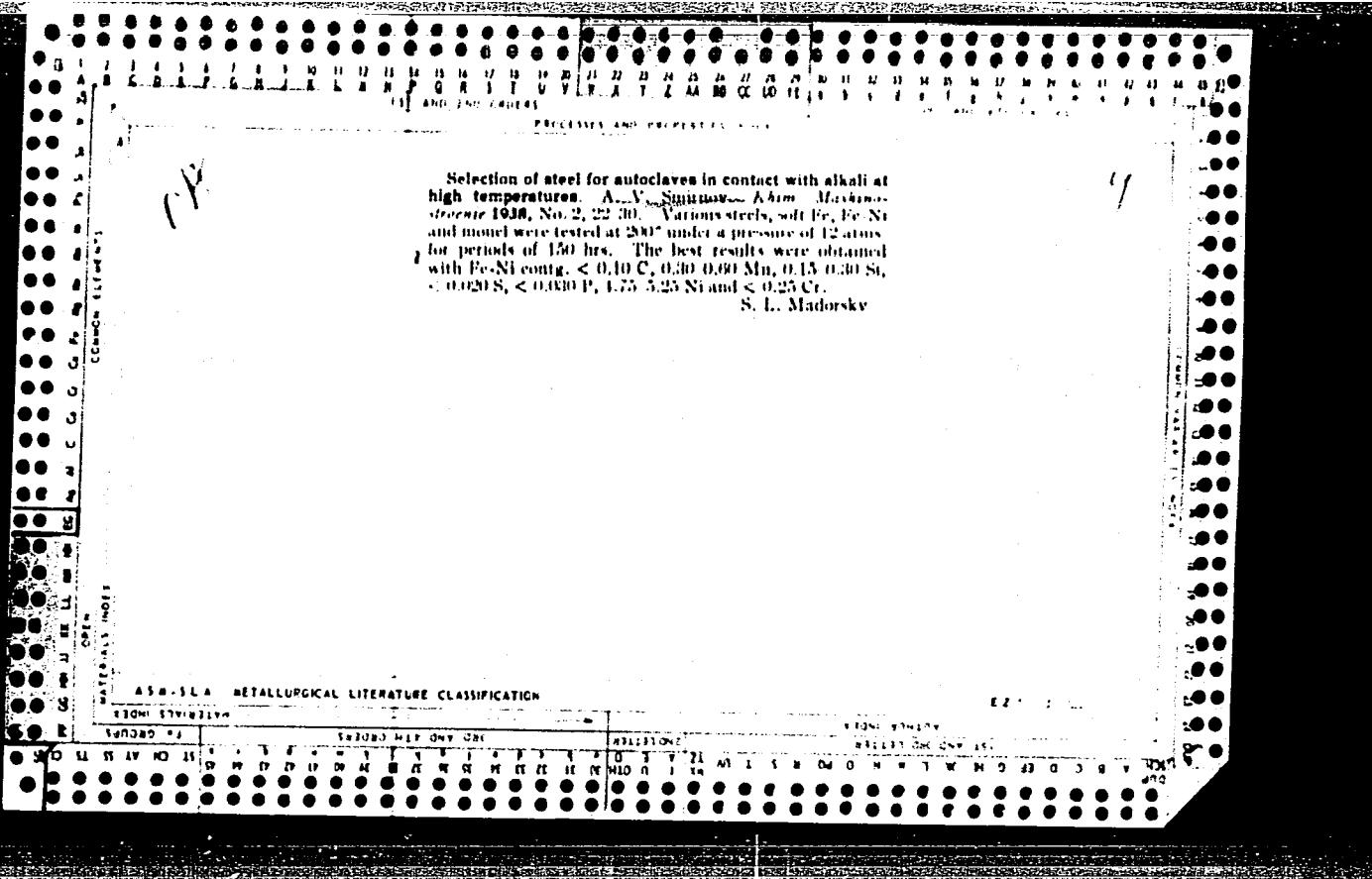


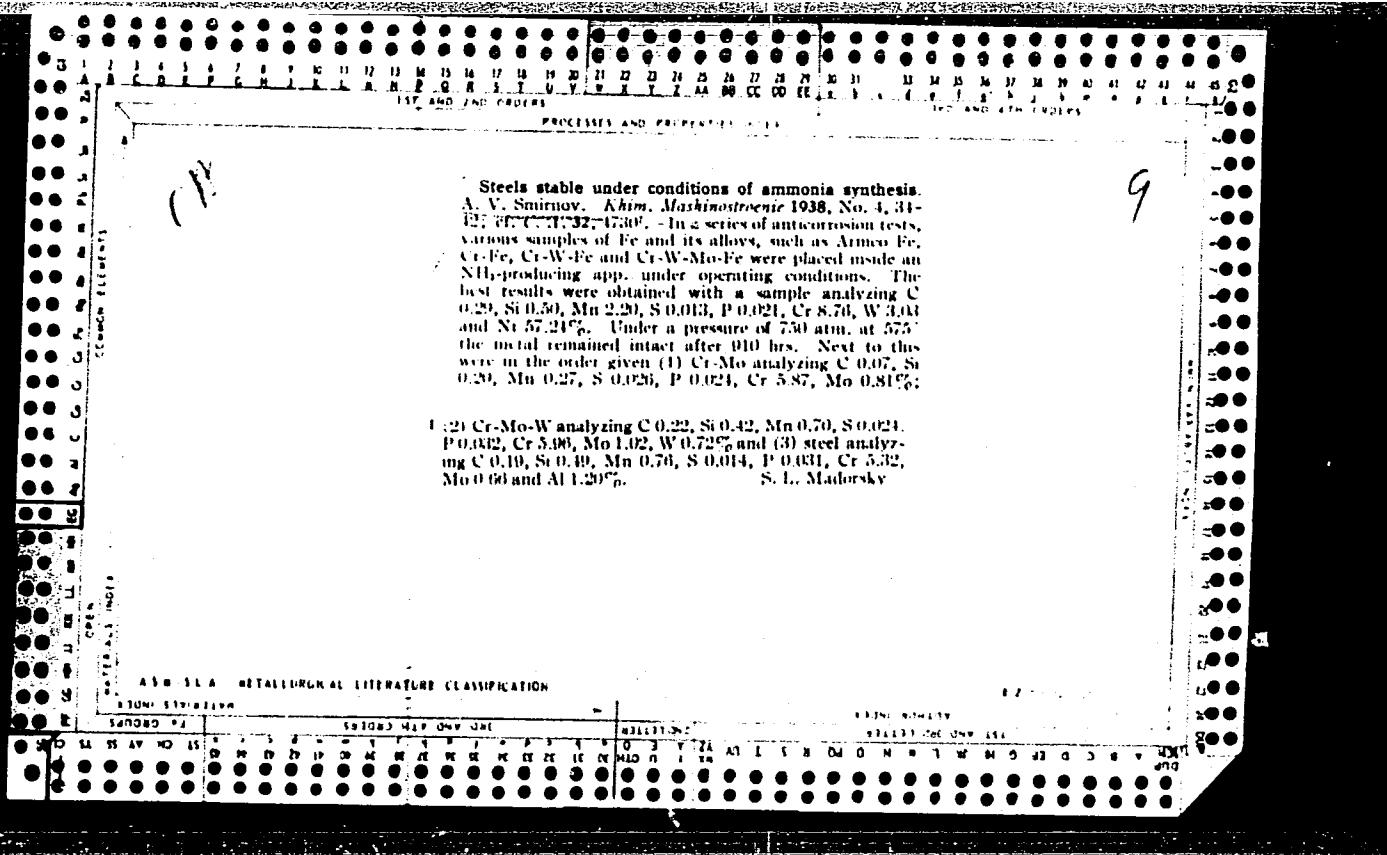
CONTROLLED ATMOSPHERE IN HEAT-TREATMENT FURNACES. A. V. Smirnov. (Kachestvennaya Stal, 1937, No. 8, pp. 6-9). (In Russian). The author reviews modern methods of obtaining a controlled natural or synthetic atmosphere for use in heat-treatment furnaces. The fundamental principles involved in the production of gas mixtures of a particular composition either inside the furnace or in separate heating equipment are discussed. In conclusion he considers the gas mixtures which are suitable for the prevention of decarburisation and oxidation, and for cementation and nitriding purposes.

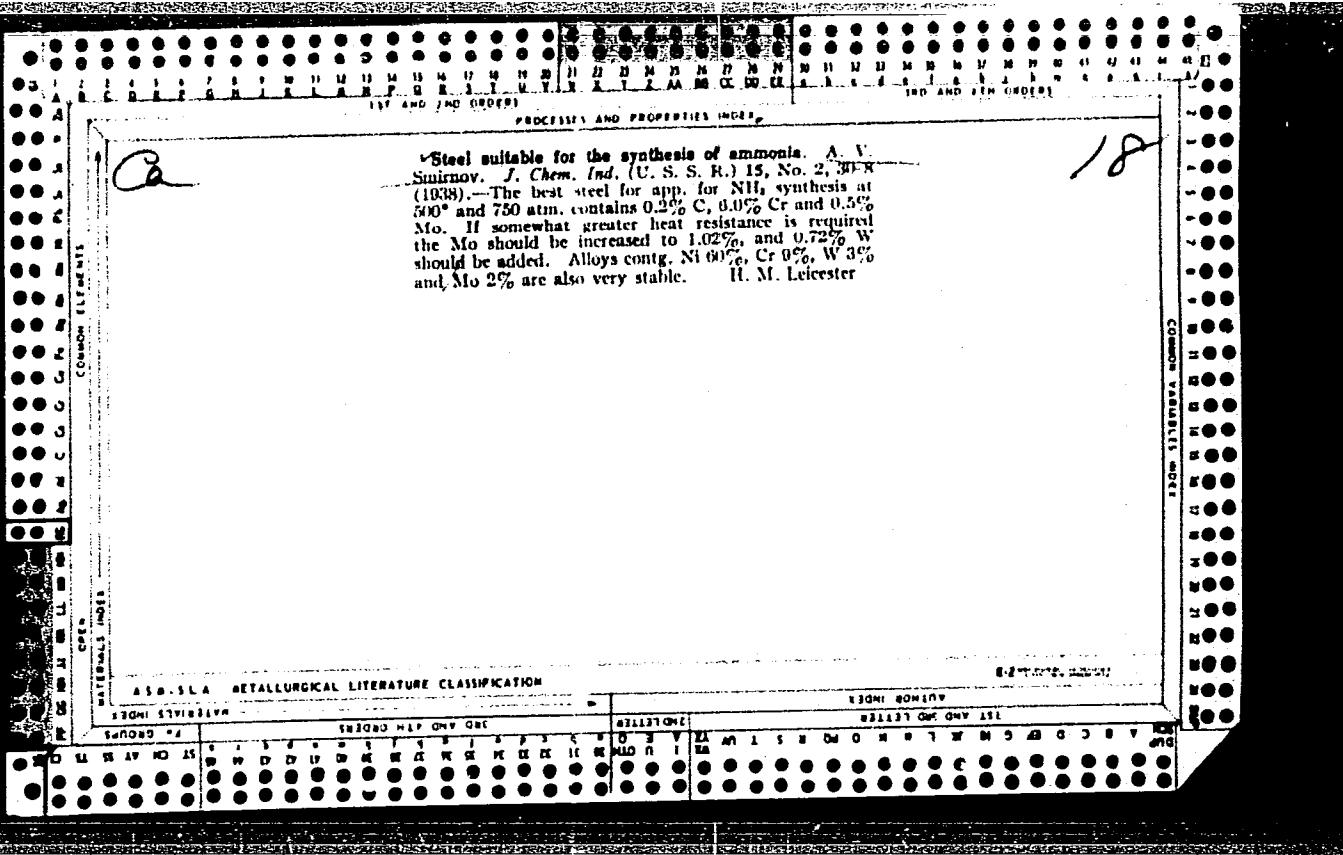
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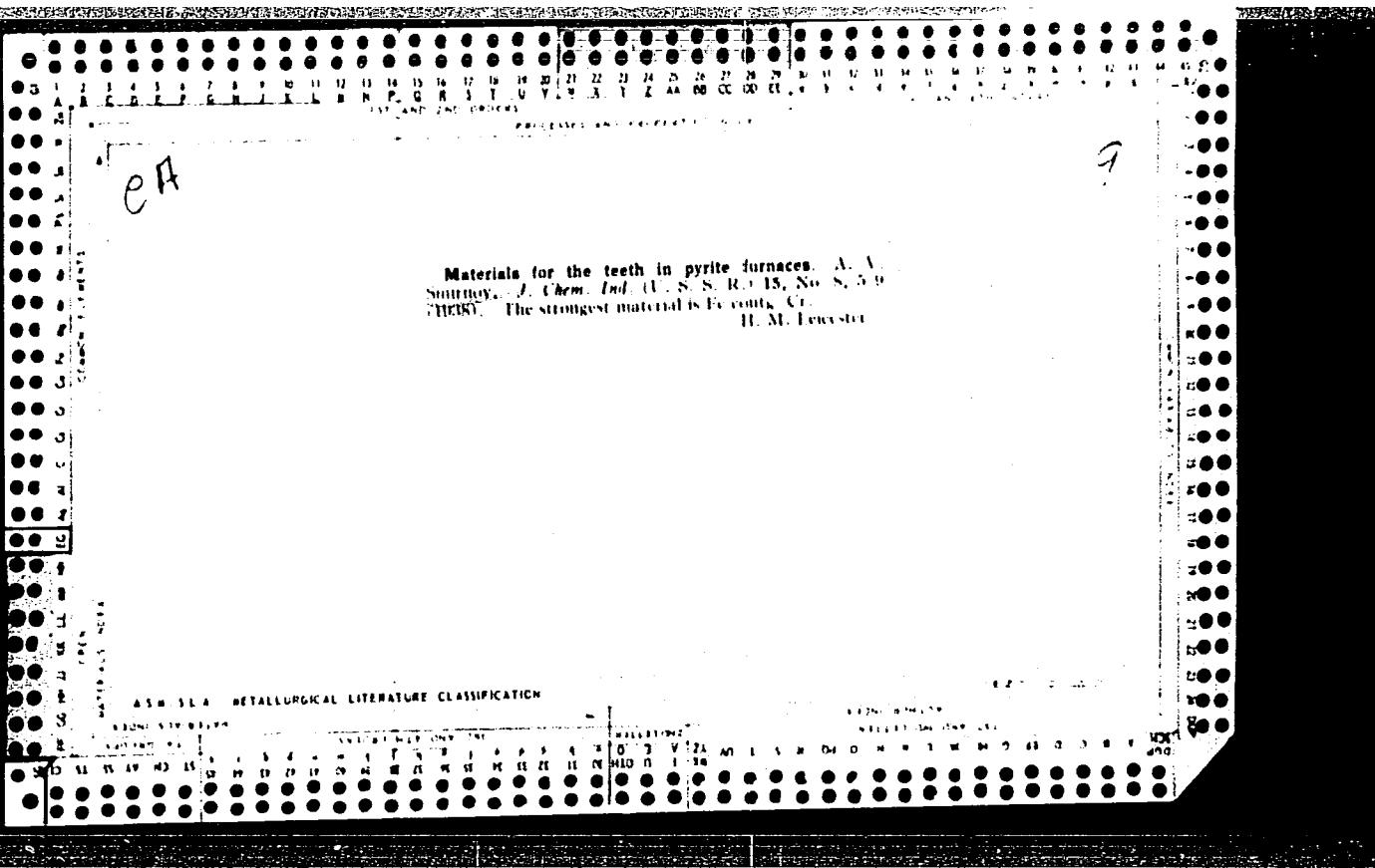












RESISTANCE AND PROPERTIES

Resistance of nitrided steels in gases. A. V. Smirnov and A. P. Khlopov. *Khim. Mashinostroenie* B, No. 5, 26-8 (1939).—An investigation was made of the wear resistance of 2 nitrided steels under conditions approaching the service of rods of compressors and pumps which handle NH₃, soda and other heavy chemicals. The following steels were tested: (1) C 0.34, Si 0.30, Mn 0.51, S 0.010, P 0.025, Cr 1.19, V 0.13, Mo 0.36, Ni 0.11%; and (2) C 0.30-0.38, Si 0.10, Mn 0.3-0.6, S 0.025, P 0.025, Cr 1.4-1.6, Al 0.8-1.2, Mo 0.40-0.60, Ni 0.50%. The nitriding was done in the usual manner for 8 hrs. at 500° + 8 hrs. at 550°. The nitrided specimens were then kept in an elec. oven at 290° for 10 hrs. and subjected to the action of air, H₂, N₂, CO₂, coke gas, and NH₃ (99% cracked), which were passed through the oven at the speed of 1 l/min. The specimens were then tested for wear resistance in an Ausler app. The results show that the 16-hr. nitriding process produced a 0.09-0.126 mm. layer which exceeded the wear of the rod by 4-6 times. Of the various gases only CO₂ and coke gas decreased the surface hardness of the nitrided layer, but the specimens did not

show increased wear. The nitrided specimens which were treated with oxidizing gases gave in most cases less wear than for reducing gases. The nitrided steel (2) was 1.5 times more resistant to wear than steel (1). Both steels (1) and (2) are considered suitable for the manuf. of pump and compressor rods.

B. Z. Kamich

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

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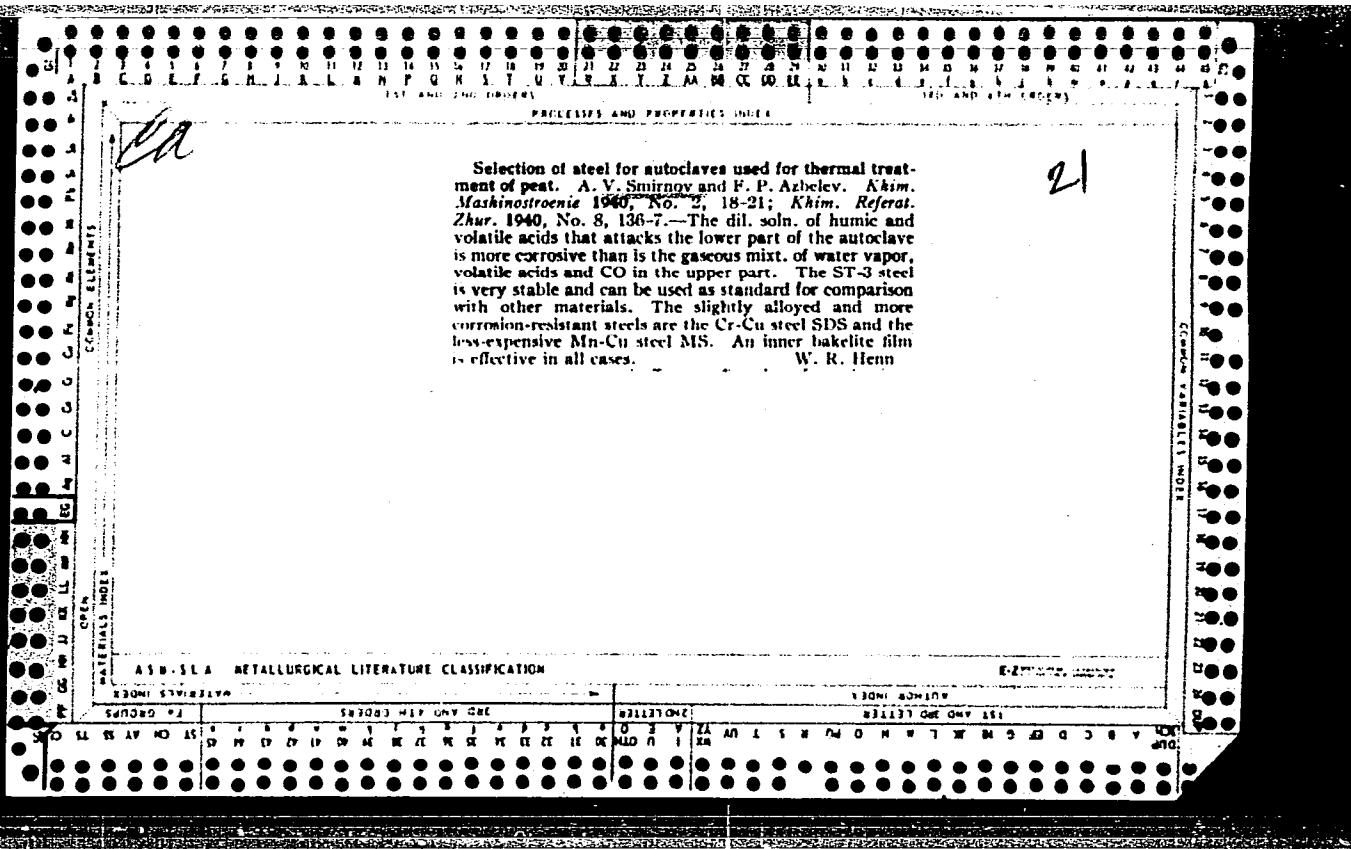
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Search for methods of decreasing the burning of typographic alloys. A. V. Smirnov, E. A. Al'ftan, and E. N. Golosova. "Poligraf," Prilozhnoye 1951, No. 9, 25 8.— In order to reduce the phys. loss of type alloys via gradual

oxidation and volatilization, while still retaining the desired characteristics, the following experimentally detd. methods can be applied. If the melting temp. is below 320-40° low vapor pressure bitumens and petroleum residues can be used as protective cover for the alloys. In the range 284-400° a mixt. of $ZnCl_2$ with 4% NH_4Cl is satisfactory, while at 300-400° $ZnCl_2$ mixts. with $MgCl_2$ or $CaCl_2$ are advantageous. Immersion of wood into the melts can be recommended only in combination with the salt covers listed above, or combined with a "floating lid" made of steel or cast iron which can be adjusted for different heights in the melt pot.

Smirnov, A.V.

Nitriding commercially pure iron to a high hardness.

A. V. Smirnov, *Vestnik Mashinostroeniya* 32, No. 12, 43-6
Max. hardening of nitrided Fe is produced when N-bearing martensite formed after quenching contains less than 2.7% N. In conventional nitriding, N₂ content on the surface is always higher than 2.7%; this leads to the soft epsilon phase. The thickness of the epsilon phase could not be reduced by nitriding at 700° in dil. NH₃. The martensite layer remained as before and the epsilon phase layer increased with longer nitriding time. Holding the epsilon phase in H₂ + N₂ for ten min. at 700° dissolved it completely, leading to hardness of 755° and martensite surrounded by an easily etchable dark phase resembling troostite, apparently a ferrite-nitride mixt. produced by the decompr. of N-poor austenite. The epsilon phase is easily decompd. by H₂, and austenitic grains on the surface become impoverished in N and lose their capability for undercooling, becoming transformed on quenching into finely dispersed α and γ iron mixt. having a hardness of 755 as compared with 317 for the epsilon phase. A 20-min. hydration increases the development of the α - γ phase and after 30 min. it penetrates into the original martensite zone, raising its hardness to 1070. After 45 min. the epsilon phase is transformed to ferrite having a hardness of 206. I. D. Gut

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Smirnov, A. V.

Smirnov, A. V.: Goryachee tsinkovanie (Hot Galvanizing).
Moscow: Gosudarst. Nauch.-Tekh. Izdatel'stvo Lit.
po Chernof i Tsvetnoi Met. 1953. 284 pp.

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CIA-RDP86-00513R001651520001-0"

SHIRNOV, A. V.

Nitridation of technically pure iron to a high hardness.
A. V. Smirnov, Zhur. Tekh. Fiz., 23, 1400-10 (1953); cf.
~~over~~ Since the highest microhardness is shown
after quenching by a nitrided-martensite phase with a N
content of less than 2.7%, a process has been worked out to
obtain such phase on the surface. The free energies and
reaction consts. of various reactions involving α - and γ -Fe,
nitrides, NH_3 , and dissolved and free N are tabulated.
From these data it is shown that a solid soln. of N in α -Fe is
formed at 705°, in γ -Fe at 289°; Fe_3N is formed at 320°,
 $Fe_2N(\epsilon)$ at any temp., and $Fe_3N(\epsilon)$ at 409°. The first,
second, and last phases are metastable at room temp. in
absence of NH_3 , the third and fourth are stable. A decrease
of NH_3 pressure by diln. with a neutral gas suppresses the
reactions leading to the formation of the ϵ -phase. Tests

were made with an NH_3 content varying from 10 to 100%.
It is shown that at lower partial pressures of NH_3 (below
10%) or decreased dissoci. (below 85%), the diffusion of Fe
and N leads to the formation of phases low in N at the sur-
face. S. formed the ϵ -phase on the surface by nitriding at
700° in a mixt. contg. 17% NH_3 , then heated the product
in a fully dissoci. mixt. for 10-75 min., and quenched in
 H_2O . A max. of microhardness was observed after a treat-
ment of 30 min. If the temp. during nitridation is raised,
the ϵ -phase disappears at 775°, an austenite phase at 825°,
and the N content is depleted completely at 875° and 925°.
Thus, high microhardness on the surface can be obtained at
higher temps. than 700°. S. Pakswar

SMIRNOV, A. V.

Descaling by Reduction with Sodium Hydride. A. V. Smirnov, S. A. Semenovich and F. A. Bogachev. (Vestnik Metalloobrabotki, 1953, 33, (3) 37-39). After a thermodynamic discussion the descaling process with hydrogen in a sodium hydroxide melt is described, and the results and economics of the process are discussed. 3

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CIA-RDP86-00513R001651520001-0

SMIRNOV, A. V.

Drying and grinding catalyst in vacuum
and S. S. Gol'seva, U.S.S.R. 101,649, Dec. 31, 1962
hydrogenation catalyst is dried and powdered
in oil at 40-90° with stirring. The vacuum apparatus
with stirrer and heating coil.

M. Hesse

PM
MF

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001651520001-0"

SMIRNOV, V. V.

Drying and grinding of a catalyst in oil in vacuum. S. S. Golynya and A. V. Smirnov. *Mashinno-Zhivotaya Prom.* No. 20, No. 5, 35-6 (1955).—An app. for simultaneous vacuum drying and grinding of a catalyst suspended in oil is described, and experience gained in its operation is discussed.

Vladimir N. Krukovsky

10/10/55
①

129-2-9/10

AUTHOR: Mishkevich, R.I., Candidate of Technical Sciences;
Solntsev, P.I., Eng., and Smirnov, A.V. Dr. of Technical
Sciences.

TITLE: Low Temperature Nitriding of Structural Steel. (Nizkotemperturnoye
azotirovaniye konstruktsionnoy stali).

PERIODICAL: Metallovedenie i obrabotka metallov, 1957, No. 2, pp. 49-54
(U.S.S.R.)

ABSTRACT: The experimental work was carried out by engineer R.V. Chudnovskaya
and four assistants. The authors investigated the possibility
of utilizing a nitriding process at a temperature below 400°C.
As a result to the experiments described a low temperature catalytic
process of nitriding at 380°C (60 to 80 hours) and 430°C (24 hours)
was developed which permits obtaining a Rockwell C hardness of 42 to
50 on structural alloy steel for a layer depth of 0.20 to 0.25 mm;
there is a steep decrease in the hardness from the surface towards
the core. By using the nitriding processes described here, the
development of Type II temper brittleness in nitrided components is
eliminated and the obtained nitrided layer is free of any brittleness
usually encountered on such layers in 38XMTA steel. The process

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129-2-9/10

TITLE: Low Temperature Nitriding of Structural Steel. (Nizkotemperturnoye azotirovaniye konstruktsionnoy stali).

described here is used in a number of Soviet factories and two of the authors of this paper have an "author's certificate" for this process. Fig. 2 gives the change of the hardness and depth of the nitrided layer as a function of nitriding processes (380, 430 and 480°C with catalysts and 530 and 580°C without catalysts) for four different steels. Fig. 3 gives the change of the micro-hardness along the cross section of the nitrided layer as a function of the nitriding process for 35XMA steel for equal nitriding processes. Table 1 contains literary data on changes of certain parameters during the reactions. Table 2 gives the Cr content with depth of the nitrided layer for the 35XH3M steel. Table 3 gives hardness of the nitrided layer in the 15N scale as a function of the temperature and the holding time during nitriding.

The text includes 4 sets of graphs, and 3 tables. There are 5 references, all Russian.
Card 2/3

SOV/137-57-10-20189

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 10, p 254 (USSR)

AUTHORS: Gordiyenko, P.L., Smirnov, A.V.

TITLE: The Resistance of Metastable Nitrous Phases to Wear and Corrosion
(Stoykost' metastabil'nykh azotistykh faz protiv iznosa i korrozii)

PERIODICAL: Tr. Leningr. in-ta aviats. priborostr., 1957, Nr 22, pp 23-28

ABSTRACT: Samples of technically pure Fe are nitrided and then quenched in various ways to produce nitrous surface phases, and are then tested for wear (W) on the Gordiyenko machine and for corrosion in 3% NaCl solution. The tests showed that a mixture of nitrous austenite and nitrous martensite has little W resistance, but that a martensitic phase has greater resistance, and that an ϵ phase is less resistant than martensite. All purely nitrous phases are less resistant than carbon martensite. Nitriding at 775°C of a specimen that had been subjected to cementation does not increase resistance to W. The high-nitrogen ϵ phase and nitrous martensite are more corrosion-resistant in 3% NaCl than are ferrite and carbon martensite.

A.B.

Card 1/1

SOV/137-57-11-21880

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 11, p 171 (USSR)

AUTHOR: Smirnov, A. V.

TITLE: Tables of Thermodynamic Functions of Reactions Occurring During Chemical and Heat Treatment of Steel (Tablitsy termodinamicheskikh funktsiy dlya reaktsiy, vstrechayushchikhsya pri khimiko-termicheskoy obrabotke stali)

PERIODICAL: Tr. Leningr. in-ta aviats. priborostro. 1957, Nr 22, pp 33-77

ABSTRACT: The author outlines the procedures for computation of variations of isobaric-isothermal potential as a function of the temperature (ΔZ_T^0) of constant-pressure reactions; the computational procedures cover conditions when all necessary data (variations of heat capacity depending on the temperature, changes in heat content, and the standard isobaric-isothermal potential, ΔZ_{298}^0) may be obtained from handbooks, as well as instances when some of the information is not available. Values of coefficients (ΔH_0 , $-2.3\Delta a$, $-\frac{1}{2}\Delta b \cdot 10^3$, $-\frac{1}{2}\Delta c \cdot 10^6$, and I) from the formula

Card 1/2
$$\Delta Z_T^0 = \Delta H_0 - 2.3 \Delta a T \log_{10} T - \frac{1}{2} \Delta b T^2 - \frac{1}{6} \Delta c T^3 + IT$$

SOV/137-57-11-21880

Tables of Thermodynamic Functions (cont.)

are computed and tabulated for 266 separate reactions occurring during chemical and heat treatment of steel; auxiliary tables of thermodynamic functions of elements and simple substances permit calculating the values of these coefficients and determine the magnitude of the ΔZ_{T}° .

A. S.

Card 2/2

Smirnov, A. V.

129-58-5-13/17

AUTHORS: Semenkovich, S.A., Candidate of Technical Sciences and
Smirnov, A. V., Doctor of Technical Sciences

TITLE: Alitizing of Iron by Vapours of Aluminum Monochloride
(Alitirovaniye zheleza parami monokhlorida alyuminiya)

PERIODICAL: Metallovedeniye i Obrabotka Metallov, 1958, Nr 5,
pp 48-51 (USSR)

ABSTRACT: The authors calculated the changes of the standard isobaric-isothermal potential ΔZ_T° of the reactions taking place during alitizing of iron using data relating to the changes of ΔZ_T° between 600 and 1200°C which were published by Fichte, R. (Ref.3). On the basis of thermodynamic analysis it is concluded that for alitizing it is advisable to obtain AlCl compounds at temperatures above 970°C and for separating aluminium in accordance with the reaction expressed by Eq.(5), p.49, the temperature should be kept below 970°C, whilst the reaction of the alitizing proper can proceed at 1150°C. The authors also give the experimentally observed results on the interaction between iron and vapours of aluminium monochloride; "technical" iron of 8 mm dia, 30 mm long was subjected to the effect of AlCl vapours at 700-800 and at 950-970°C for a duration of one hour.

Card 1/2

129-58-5-13/17

Alitizing of Iron by Vapours of Aluminum Monochloride

It was found that a hard, scale-resistant surface layer forms if the alitizing process is effected in the temperature range 950 to 1000°C; the strength of this coating is attributed to the formation of the intermetallic compound Fe_2Al . If the alitizing temperature is higher, a less hard layer forms which appears to be a eutectic mixture of the phases $FeAl_5$ and $FeAl_3$.

There are 1 figure and 12 references, 6 of which are Soviet, 3 German and 3 English.

AVAILABLE: Library of Congress.

- Card 2/2 1. Aluminum coatings-Test results 2. Iron-Aluminum coatings
 3. Aluminum monochloride-Applications

PHASE I BOOK EXPLOITATION

SOV/5837

Smirnov, Aleksandr Vasil'yevich, Doctor of Technical Sciences, and Lev Vladimirovich Beloruchev, Candidate of Technical Sciences

Kontrolliruyemye atmosfery i ikh primeneniye dlya termicheskoy i khimiko-termicheskoy obrabotki metallov; obzor (Controlled Atmospheres and Their Use in Heat and Thermochemical Treatment of Metals; Survey) Leningrad, 1960. 74 p. (Series: Leningradskiy Dom nauchno-tehnicheskoy propagandy. Seriya: Metallovedeniye i termicheskaya obrabotka). Errata slip inserted. 5500 copies printed.

Sponsoring Agency: Obshchestvo po rasprostraneniyu politicheskikh i nauchnykh znaniiy RSFSR. NTO Mashprom Leningradskoye oblastnoye pravleniye. Leningradskiy Dom nauchno-tehnicheskoy propagandy. Sektsiya metallovedeniya i termicheskoy obrabotki.

Ed.: A. D. Nachinkov; Ed. of Publishing House: V. A. Shilling; Tech. Ed.: M. M. Kubneva.

PURPOSE: This booklet is intended for technical personnel concerned with the use of controlled atmospheres in the heat treatment of metals.

Card 1/1

18.7500

78127
SOV/129-60-3-6/16

AUTHORS: Smirnov, A. V. (Doctor of Technical Sciences, Professor),
Nachinkov, A. D. (Engineer)

TITLE: Surface Strengthening of Titanium by Methods of Chemical-Thermal Treatment

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov,
1960, Nr 3, pp 22-29 (USSR)

ABSTRACT: This is a description of an investigation prompted by the unsatisfactory wear resistance of titanium and the necessity of its surface strengthening. The present work considers the possibilities and the results of surface strengthening of titanium and contemplates the future work in this direction. The phase composition of the strengthened surface; oxidation of titanium; nitriding of titanium; case hardening and cyaniding of titanium; and boron treatment of titanium were studied and described. The work of G. A. Meyerson and M. P. Smirnov was mentioned. The authors arrived at the following conclusions: (1) The industrial

Card 1/3

Surface Strengthening of Titanium by
Methods of Chemical-Thermal Treatment

78127
SOV/129-60-3-6/16

The most recent U.S. and U.K. references are: Lenning,
G. A., Graighead, C. M., Jaffe, R. I., Journal of
Metals, 6, 1954; Watt, J., Grant, N., TASM, 46, 1954;
Iron Age, 173, 1954; Hausen, R., Metal Progress, 65,
1954; Wasilewski, R. I., Kehl, Metallurgiya, 50, 1954;
Wasilewski, R. I., Kehl, G. L., Journal Inst. Met.,
83, 1954.

Card 3/3

SLAVINA, N.P.; SMIRNOV, A.V.

Measuring hardness at high temperatures. Izm.tekh.no.4:14-16 Ap '61.
(MIRA 14:3)

(Hardness—Measurement)

BALTER, Mariya Aronovna, kand. tekhn. nauk; SMIRNOV, A.V., red.;
FOMICHEV, A.G., red. izd-va; BOL'SHAKOV, V.A., tekhn. red.

[Prolonging the life of machine parts] Puti povysheniia dolgovechnosti detalei mashin; stenogramma lektsii, prochitannoi v LDNTP na zaniatii seminarapo metallovedeniu i termicheskoi obrabotke.
Leningrad, 1962. 29 p. (MIRA 15:6)

(Heat treatment) (Protective coating)

SMIRNOV, A. V.

32550. MAT'KIN, I. I. i SMIRNOV, A. V. S'yeannaya porryazchchnay stroila na traktore
HT-1A. Les. Res. Front-st', 1949, No 9, s. 15-16

SC: Letopis' Zhurnal'nykh Statey, Vol. 44, Moskva, 1949

SMIRNOV, A. V.

Dissertation: "Natural Restoration of Siberian Cedar in the Lake Baykal Area."
Cand Agr Sci, Inst of Forestry, Acad Sci USSR, Moscow, Oct-Dec 53. (Vestnik
Akademii Nauk, Moscow, Jun 54)

SO: SUM 318, 23 Dec 1954

SMIRNOV, A.V.

~~Cedar groves in the Baikal region. Priroda 42 no.11:113-114 N '53.~~
(MLRA 6:11)

1. Vostochno-Sibirs'kiy filial Akademii nauk SSSR.
(Baikal, Lake, region--Rhododendron) (Rhododendron--Baikal, Lake, region)

USSR / Forestry. Biology and Typology of the Forest. K-2

Abs Jour: Ref Zhur - Biologiya, No. 1, 1958, 1318

Author : Smirnov, A.V.

Inst : Eastern Siberian Branch of the Acad Sci USSR

Title : The Appearance of the Siberian Cedar in Several
Types of Pine Forests of the Pribaykal'ye

Orig Pub: Tr. Vost.-Sib. fil. Akad. Nauk SSSR, 1957,
No. 5, 54-60

Abstract: The appearance of a growth of cedar under a
pine canopy has been noted in mossy and varied-
grass pine forests in the zone of contact be-
tween stands of pine and of cedar, sometimes at
a distance of 10-15 km. from the body of cedars;
this can be explained only by transport of the
cedar seeds by the Nutcracker *Nucifraga Cary-
oatactes*. Forming 0.6-0.7 of the young plants,

Card 1/2

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651520001-0"
USSR / Forestry. Biology and Typology of the Forest. K-2

Abs Jour: Ref Zhur - Biologiya, No. 1, 1958, 1318

the cedars grow faster and higher than the pines,
thanks to their greater shade resistance and to
conditions less favorable to the growth of pines.
It is supposed that on mountain pine-green moss
areas the cedar will slowly squeeze out the pine
whose reforestation is difficult on a moss cover.

Card 2/2

BOOKFILE : Subject
CATEGORY : Forestry. General Problems.

ARS. JOUR. : Ref Zhur-Biologiya, No.1, 1959, No. 1434

AUTHOR : Smirnov, A.V.
INST. : Eastern Affiliate Academy of Sciences USSR
TITLE : High-Mountain Cedar Forests of the Region
Near Baykal.

ORIG. PUB. : Izv. Vses. Akad. Nauk SSSR, 1957, No.10,
122-129

ABSTRACT : In Khamar-Daban and in the eastern Sayan
(upper part of the Uda river) rhododendron
(with Rhododendron sureum) and mossy-lichenic
cedar groves of IV, V and Va locality classes oc-
cur. They are situated at 1400-1800 m. elevation,
along slopes of 4 to 20° and less frequently to
35°, reach an age of 300 to 400 years with
trunk diameter to 100 cm. and stand density
of 50 to 200 trees per 1 hectare. The best
restoration (6400 plants in 1 hectare) occurs in

CARD#:

1/2

SMIRNOV, Aleksey Vsevolodovich; SMIRNOVA, Mara Valerianovna; SHAFIROVA,
A.S., red.; PECHERSKAYA, T.I., tekhn.red.

[Gifts from the green ocean] Dary zelenogo okeana. Irkutsk,
Irkutskoe knizhnoe izd-vo, 1959. 109 p. (MIRA 14:1)
(Siberia--Forests and forestry)

LAPIROW-SKOBLO, Samuil Yakovlevich, prof., doktor sel'skokhoz.nauk.
Prinimal uchastiye SMIRNOV, A.Y., kand.tekhn.nauk. SUDNITSYN,
I.I., dotsent, retsenzent; SHUKLIN, A.V., red.; SHAKHOVA, L.I.,
red.izd-va; PARAKHINA, N.L., tekhn.red.

[Forest products; a commercial guide] Lesnoe tovarovedenie.
Izd.2., perer. i dop. Moskva, Goslesbumizdat, 1959. 435 p.
(MIRA 13:4)

(Forest products)